Original/Duplicate/Triplicate

CONTRACT CERTIFICATE

(For Other Works)

SBR No. 107/20-21 DATED 30-3-21

EE/ELE/Y/BR No. 107/20-21 Dt. 30-3-21

No. 1st & Final bill

Date.....2016

Division: **Electrical (yelahanka)** Sub-Division: **Electricals**

Bill Received No. Dated Divisional Cash Book Voucher No..... Dated.....

Sub Divisional **Job Code :-002-21-000009**

Schedule Docket No. Head of Account : P-CODE: 0190. D.R.No. :

Name of Work:- Providing Energy efficient LED Street Lights, control Switches and wires to Main roads and around Chowdeshwari Ward No 02..

Name of Contractor and Full Address: **Sri Thilak Chakadi Ram** M/s Sansam Controls and Automation

Reference to Agreement No:BBMP/EE/YNK.D/EMPT-5/W.O/160/2020-21 Date 05/12/2020

BBMP/EE/YNK/W.O/000211/2020-21 Date 12/1/2021

Certified that the measurements were taken by me on 25/3/2021 and recorded of Pages 256443 to of measurement Book No. 2565 18-19 and that the work is satisfactorily executed.

For SANSAM CONTROLS AND AUTOMATION

Contractor **Officer-in-charge of work**

Certified that the measurement were taken by me on 29/3/21 and found correct. The work is satisfactorily executed.

Proprietor

Certified that the quantities of materials shown in column 3 of Account have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of and imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

Sub-Division Officer

Assistant Executive Engineer (E)
BBMP, Bangalore

II Memorandum of Payment

1)	Total value of work done or supplies made as per account within	Bill= 78,70,295=00
2)	Deduct amount to be held in reserve being .....percent Rs.....	IT 1% 78703=00
3)	" Balance	LWC 1% 78703=00
4)	Deduct Payment:	GBFD 1% 7870=00
	a) Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D. No..... Amount adjusted towards cash advance recovery of	CGst 1% 70271=00
	b) Payments Now made cost store or other material supplied. recovery of amount creditable to this/other work Amount paid on this bill Cheque / Cash.	SGst 1% 70271=00
		deductions= 3,05818=00
5)	Balance being unpaid value of work done held in reserve.	Cheque= 75,64,477=00
6)	Deduct cash advance made on the Office cash Book Voucher No..... dated.....less adjustments.	
7)	Net amount due to or from Contractor	unadjustments items.
8)	Advance to Contractor for materials brought to site (as detailed) within.	
9)	Value of Government materials supplied.	
	Total amount adjusted	

For SANSAM CONTROLS AND AUTOMATION

Contractor's Signature

Received Rs..... (in words).....

.....

by cash and by adjustment of Payment as per memorandum (in final settlement of all demands)

Proprietor

(For use in the Office)

Witness

1.

2.

For SANSAM CONTROLS AND AUTOMATION

Dated Signature of Contractor

Proprietor

Paid by me by Cheque No.....Dated.....

Cash Rs.....

Dated.....

Initials of Officer making payment

Stamp

0190 Hom mayor grants. Exceed

ರೂ: 78,70,295=00

ರೂ: ~~51,95,563=00~~ 75,64,477=00

ರೂ: ~~2711732=00~~ 3,05,818=00

Executive Engineer

ಲೆಕ್ಕ ಅಧೀಕ್ಷಕರು ಕಾ.ಪಾ.ಅ(ವಿ) ವಿಭಾಗ ಬೆಂಗಳೂರು

Sl. No	Description	Un
	Name Of Work:-Providing Energy efficient LED Street Lights, control Switches and wires to Main roads and around Chowdeshwari Ward No 02.	
1	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with W System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Streetlight 120 Watts	Nos
2	Supplying and Fixing.....mm dia class A GI pipe bracket up to 2.7 meters long terminated with a reducing collar of 40x25mm to which extra pipe of 175mm length is fixed for fixing MV/SV/MH/FTL street light fitting of all capacities on rail/RCC/wall/tubular pole, using suitable clamps, bolts, nuts and wiring using suitable capacity wires.Using 40mm dia G.I.Pipe	Each
3	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring.4 sqmm	Mtrs
4	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.25 sqmm Long Barrel	Nos
5	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.	Each
6	Supplying heavy gauge PVC conduit pipe .....dia mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.25mm dia 2mm thick	Mtrs
7	ACSR conductor as per IS-398 (Part -2/1996) Supplaying of Weasel ACSR (6/2.59 mm Al + 1/2.59 mm St), Std Wt : 128 kgs/km	Mtrs
8	LT 2 Pin X Arms - MS (Dwg No. BESCOM/GM/QS&S/32 Dtd 24.11.2018	Nos
9	RCC Pole clamp - MS (Dwg No. BESCOM/GM/QS&S/30 Dtd 24.11.2018)	Nos
10	1.1kV Ceramic Pin Insulator (Shell only)	Nos
11	1.1kV GI Pin FOR 1.1kV Cermaic shell Insulator	Nos
12	No.8 Strain Insulator	Per Mtr
13	Stringing of conductor (including pin binding, providing jumps, dead ending, etc.,)Weasel	Mtrs
14	Fixing of 2 Pin cross arm with insulator and Braces fixing	Nos
15	1.1KV Class HR (Heat Resistant) PVC Insulated & UnSheathed Aluminium Wires Multistrand Single core Lead wires as per IS-694: 2010PVC Wire - 25 Sqmm Al Wt: 6.7 Kgs, Total Wt: 11.5Kgs for 100Mtrs	Mtrs

Previous Measurement		Present Measurement			Total Upto Date		Remarks
Qty	Cost	Qty	Rate	Amount	Qty	Cost	
		583	9655.4	5629098.2	583	5629098.2	
		583	1271.99	741570.17	583	741570.17	
		795	9.45	7512.75	795	7512.75	
		30	20.99	629.7	30	629.7	
		583	183.66	107073.78	583	107073.78	
		48	66.22 (62,22)	3178.56 (3274,56.)	48	3178.56 (3274,56.)	
		995	22.62	22506.9	995	22506.9	
		28	91.31	2556.68	28	2556.68	
		28	55.62	1557.36	28	1557.36	
		24	18.89	453.36	24	453.36	
		24	23.57	565.68	24	565.68	
		20	16.79	335.8	20	335.8	
		995	26.51	26377.45	995	26377.45	
		28	111.25	3115	28	3115	
		132	33.91	4476.12	132	4476.12	

16	Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.	Nos
	Total Rs	
	Add GST on Item No 1 to 06 Rs 6489063.16 @ 12%	
	Total Rs	

Certificate: 1. Certefied that the Above Work has been carreid out satisfactorily

Assistant Executive Engineer (Ele)
BBMP, Bangalore

		10	54049.25	540492.5	10	540492.5	
				7091500.01	7091596.01	7091500.01	7091596.01
				778687.58	778699.10	778687.58	778699.10
				7870187.59		7870187.59	
				78.70.295.11		78.70.295.11	